CP524 TS Adapter
Release Notes

Revision: 2.0.8 (4259)

2013-11-21

1 Overview

This document contains the SW revision history for CP524 TS Adapter. The release note is cumulative, each chapter describing changes since the previous released version.

2 Upgrade instructions

- Software upgrade of the device should – if possible – be done at a time when the device is not in use for critical signal transmission.
- Always take a backup of the device's current configuration before doing the upgrade (use Device Info > Save/load Configs > Save Configuration in the device's GUI).
- Have a copy of the original software file currently in use at hand, in case of a need for reverting to the last operational state.

2.1 How to upgrade

- Log into the unit as admin using any web browser. Navigate to Device Info > Maintenance > Software Upgrade and click on Browse. Then upload the software image (*.out) from your file system.
- After the software is loaded the unit will reboot and load the new software image. Loading the new software image takes the same amount of time as a normal reboot, which may take from 45-90 seconds.
- It is possible to upload the software to the unit, and postpone the reboot operation. The old software will be used until the next reboot. This is done by ticking off the Reboot on success option on the Software Upgrade page.
- If you have T-VIPS Connect, refer to the T-VIPS Connect User's Manual on how to upgrade several units.

3 Release 2.0.8 Opera

3.1 Release date 2013-11-21

Maintenance release with a few new features and patches.

The release also updates the look and feel of the GUI to Nevion flavors.

3.2 Features

3.2.1 PMCP dynamic PSIP EPG

Added support for dynamic loading of EPG from provider on IP network. The function is configured per TS output. The PMCP service can fetch multiple files by FTP as offered by Mediastar or a single file by HTTP for Myers systems. The function is licensed per output port.

3.2.2 VCT channel re-branding

A new SW license APU is now required to perform automatic re-branding of major and minor channel numbers.

3.2.3 DHCP/DNS

Unit now supports automatic IP address assignment by DHCP on the Ethernet interfaces. When using this function a hostname can be registered for the unit on the DNS server by the DHCP server. This makes it possible to access the units on the network by name instead of IP address.

When configuring a uni-cast destination for transmitted IP streams, it is now possible to specify the destination by hostname instead of IP address.

The VLAN interface configuration pages have been slightly changed to adapt to the new parameters for DHCP.

3.2.4 Automatic re-mapping

A new feature has been added to enable automatic resolving of PID and service ID conflicts when multiplexing programs from multiple inputs. Please read the User manual to update on how this function works.

With the above function, it is now also possible to configure default passing of programs and unreferenced PIDs from multiple inputs.

3.2.5 PSI/SI/PSIP table version numbers

Added support for manually specifying the version numbers on statically played out PSI/SI/PSIP tables.

Note: remark that receivers that only look at version numbers to detect changes may not work properly if you change the content of a table without also changing the version number.

3.2.6 IP Outputs

- Option added to override the default SSRC ID field, separately on data and FEC streams. This was added for compatibility with another manufacturers IP inputs.

3.2.7 IP Inputs

- Added alarm on missing row/col FEC stream when FEC enabled.

3.3 Issues fixed

3.3.1 TS inputs

A fix has been included for a potential crash problem when receiving massive SI updates saturating the section filter and at the same time receiving a PAT update on any port.

3.3.2 IP inputs

- Fixed an issue with resource allocation on IP diversity inputs. When defining an input diversity pair, consecutive IP channels added would not work properly.
- Fixed a problem with latency calculation when receiving IP streams with frames out of order and row FEC processing enabled. Symptom would be slowly increasing latency to be displayed.
- Fixed a problem with handling of out-of-order streams when running with relatively low latencies and without FEC processing. This usage cenario could cause reporting of missing packets and disturbances on input signal.
- Fixed an issue where the FEC engine would introduce errors for very specific FEC and Data receive patterns. The issue appeared if both FEC Row and FEC Column was received before a row of Data. This could happen with network equipment using different QoS settings on FEC and Data, and sometimes delaying the Data frames relative to the FEC frames by some milliseconds. This issue would typically also only be seen for FEC matrixes with a small FEC Row length.

- Fixed an issue with restoring of a non-default value on the advanced page parameter "Expected PCR accuracy". The parameter would be set to the default value after boot, and after switching regulator modes.

  – Fixed an issue with synching to channels with no RTP layer and TS priority bit set on PIDs in range 0x01xx.

3.3.3 TXP_post / Network

- Fixed a TCP/IP network stack issue that could cause large HTTP requests to be interrupted before an answer was fully transmitted. The problem was seen on config loading requests, where processing of a received HTTP request would take several seconds before the HTTP response should be sent. In some cases a mechanism to catch hanging socket connections would take down the connection before the response was fully transmitted.

- Added HTTP 411 Length Required error message on TXP post request where the HTTP parameter Content-Length is omitted. The WEB server requires this field to handle such requests efficiently.

3.3.4 PID crash detection

- Fixed an issue with PID crash detection between routed data and PMT PIDs played out in modes "Playout Unchanged" and "Playout Static".

3.4 Licensing

The following table lists the available SW options in this SW version.

Table 3.1.a The list of licensed features in this version

Key	Function
APU	VCT channel rebranding.
MUX	Allows multiplexing of transport streams.
SFP	SFP slot support.
SFPC	Enables configuration of some telco variants of SFPs.
SFB	Enables Service Fallback SW redundancy switching.
IDR	Enables RTP/IP diversity reception.
PSIE	Enables PSI/SI/PSIP editor.
PMCP	Number of outputs with dynamic PSIP EPG loading.
TSOX	Number of unique output streams that can be used simultaneously.
TSIX	Number of input streams that can be used simultaneously.
ISW	Enables the input switching module.

Table 3.1.b The list of licensed features in this version

Key	Function
FEC	Forward error correction on IP input/output.
ER	Enables the Embedded Redundancy Controller module.
TCON	Connect control. Enables management of a device with the Connect Tool.

The APU licence is new in this version.

4 Release 1.0.40 Terrace Bay

4.1 Release date 2012-09-14

This release is the first official release for the CP524 TS Adapter.

The release features advanced multi-channel Transport Stream processing, multiplexing and interface conversion between ASI, IP/Ethernet and SMPTE 310.

4.2 Features

- Flexible transport stream processing
  - Demultiplexing of input Multiple Program to Single Program TS
  - Rate adaptation (add/remove 'null packets')
  - PID and service filtering and remapping
  - Remultiplexing of services and components (option)
  - Up to four output multiplexes (licensed 1-4)
- Transport Stream Monitoring
  - TR 101 290 Priority 1 monitoring of input signals
  - Monitoring of TS, service and PID bit-rates
  - Overview of PSI/PSIP/SI tables, PIDs and services
  - Support for ATSC and DVB compliant Transport Streams
- Powerful PSI/PSIP/SI handling
  - PSI/SI/PSIP regeneration, editing and playout
  - Add new component signalling and descriptors.
  - Build tables from scratch or import tables from input ports, a file, the currently transmitted data or the currently stored static tables, using a powerful built-in PSI/SI/PSIP editor.
- RTP/IP Diversity Reception
  - Combine two synchronized IP streams into one.
  - Provides stream redundancy over multiple network paths.

- Redundancy
  - T-VIPS Embedded Redundancy Controller provides fast redundancy switching from main to standby CP524 unit.
  - Input switching on loss of signal or critical alarm condition.
  - Supports automatic switch back to main.
- User-friendly configuration and control
  - WEB/XML based remote control.
  - SNMP agent for easy integration with NMS systems.
  - Integrated with T-VIPS Connect.

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ISW	Enables the input switching module.
FEC	Forward error correction on IP input/output.
ER	Enables the Embedded Redundancy Controller module.
PSIE	Enables PSI/SI/PSIP editor.
TCON	Connect control. Enables management of a device with the Connect Tool.